

## R E M A R K S

Careful review and examination of the subject application are noted and appreciated.

### COMPLETENESS OF OFFICE ACTION

The Office Action fails to address arguments presented by the Applicant in the previous response<sup>1</sup>, which are still relevant to the Senda reference (U.S. Pat. No. 5, 719,630) being applied, as required by MPEP §707.07(f) and, therefore, is not complete as to all matters as required under 37 CFR §1.104. Specifically, in an Examiner Note for form paragraph 7.38 (which deals with mootness in view of a new ground of rejection), MPEP §707.07(f) states that "the examiner MUST, however, address any arguments presented by the applicant which are still relevant to any references being applied" (MPEP §707.07(f), emphasis added by Applicant's representative).

The new ground of rejection presented in the present Office Action<sup>2</sup> applies the Senda reference in the same manner as the Senda reference was applied in the previous Office Action<sup>3</sup>. In the Amendment filed July 31, 2007, Applicants presented arguments

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<sup>1</sup> See arguments presented on page 9, line 16 through page 11, line 6 of the Amendment filed July 31, 2007.

<sup>2</sup> See page 5, section 4, lines 1-2 and page 2, section 2, lines 3-8.

<sup>3</sup> See page 2, section 2, lines 3-8 of the Office Action mailed May 11, 2007.

why the Senda reference did not disclose a second circuit as presently claimed. Since Senda is being applied in the present Office Action in the same manner as Senda was applied in the previous Office Action, the arguments presented by the Applicants in the previous response are still relevant and, therefore, the Office should have addressed those arguments in the current Office Action. Since the current Office Action does not address the arguments presented in the previous response, as required by MPEP §707.07(f), the Office Action is not complete as to all matters as required under 37 CFR §1.104. As such, Applicants' representative respectfully requests the Office address the arguments presented in the previous response in a new Office Action or withdraw the rejection.

Furthermore, the rejection fails to address all the limitations of the presently pending claims. Specifically, claim 1 recites:

a second circuit configured to select either said first reference picture or a second reference picture as a better reference picture for **subsequent** motion estimation on said current picture in response to said control signal (emphasis added by Applicants' representative).

The present Office Action does not address the limitation of **subsequent** motion estimation on the current picture. Claims 12 and 13 include similar limitations. Since the current Office Action does not address the explicitly stated claim limitations, the

Office Action is not complete as to all matters as required under 37 CFR §1.104. As such, Applicants' representative respectfully requests the Office address the explicitly stated claim limitations in a new Office Action or withdraw the rejection.

**CLAIM REJECTIONS UNDER 35 U.S.C. §103**

The rejection of claims 1-22 under 35 U.S.C. §103(a) as being unpatentable over Senda (U.S. Patent No. 5,719,630) in view of Adiletta et al. (U.S. Patent No. 6,101,630; hereinafter Adiletta) is respectfully traversed and should be withdrawn.

The rejection of claim 23 under 35 U.S.C. §103(a) as being unpatentable over Senda in view of Adiletta and further in view of Mauro, II et al. (U.S. Patent No. 7,039,246; hereinafter Mauro) is respectfully traversed and should be withdrawn.

In contrast to the cited references, the presently claimed invention (claim 1) provides an apparatus comprising (a) a first circuit configured to generate a control signal in response to (i) a measurement of inter-picture motion between a current picture and a first reference picture and (ii) a predetermined threshold value and (b) a second circuit configured to select either the first reference picture or a second reference picture as a better reference picture for subsequent motion estimation on the current picture in response to the control signal. Claims 12 and 13 include similar limitations. The combination of Senda and

Adiletta does not teach or suggest each and every element of the presently claimed invention as required under MPEP §2143. As such, the presently claimed invention is fully patentable over the cited references and the rejections should be withdrawn.

Specifically, assuming, *arguendo*, elements 71-74 in FIG. 10 of Senda are similar to the presently claimed first circuit (as suggested on page 2 of the Office Action and for which Applicants' representative does not necessarily agree), the Office Action fails to factually establish that Senda teaches or suggest a first circuit configured to generate a control signal in response to (i) a measurement of inter-picture motion between a current picture and a first reference picture and (ii) a predetermined threshold value, as presently claimed. In particular, the Office Action fails to identify what signal of Senda is considered to correspond to the control signal as presently claimed. As such, the Office Action does not appear to have met the Office's burden to factually establish that all the limitations of the claims are taught or suggested by the cited references, as required by MPEP §2143.

Furthermore, assuming, *arguendo*, elements 75 and 76 in FIG. 10 of Senda are similar to the presently claimed second circuit (as suggested on page 2 of the Office Action and for which Applicants' representative does not necessarily agree), Senda does not teach or suggest a second circuit configured to select either the first reference picture or a second reference picture as a

better reference picture for subsequent motion estimation on the current picture in response to the control signal, as presently claimed. In particular, elements 75 and 76 in FIG. 10 of Senda operate on mean absolute error values and motion vectors, respectively, and, therefore, are working on values obtained after motion estimation has been performed.

Furthermore, elements 75 and 76 in FIG. 10 of Senda do not select **a reference picture for subsequent motion estimation** on the current picture, as presently claimed. Rather, element 75 of Senda selects a dual-field mean absolute error value having the minimum value (see FIG. 10 and column 11, lines 50-56 of Senda). Furthermore, the elements 75 and 76 of Senda do not appear to select anything **in response to a control signal**. Therefore, Senda does not teach or suggest a second circuit configured to select either the first reference picture or a second reference picture as a better reference picture for subsequent motion estimation on the current picture in response to the control signal, as presently claimed. As such, the presently claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

Furthermore, the Office Action fails to meet the Office's burden to factually establish a suggestion or motivation for the particular combination of references. Specifically, on page 5, lines 4-7 of the Office Action, the Office Action states that it

would have been obvious to one having ordinary skill in the art at the time of the invention was made to improve Senda's moving picture coding in accordance with the teaching of Mauro by using a programmable threshold to improve encoding techniques as suggested by Mauro. The Office Action cites column 2, lines 8-11 of Mauro. However, column 2, lines 8-11 of Mauro merely states that improved encoding techniques are highly desirable particularly for use in wireless devices or other portable video devices where computational resources are more limited and power consumption is a concern. Column 2, lines 8-11 are silent regarding why a programmable threshold would be necessary or desirable to improve an encoding technique of Senda.

Furthermore, Mauro states that video encoding techniques are described which can improve video encoding by terminating computations when it is determined that additional computations are unnecessary for effective video encoding (see column 2, lines 15-23 of Mauro). Mauro then goes on to say that a video encoding technique may involve defining a threshold for a video encoding routine and terminating at least part of the video encoding routine when a calculated difference value overcomes the threshold. Thus, Mauro appears to use a programmable threshold to determine when to terminate computations. Mauro does not appear to teach or suggest the use of programmable threshold in combination with a measure of

global measurement between a first picture and a second picture to generate a control signal, as presently claimed.

Merely because a reference contains an element similar to a claimed element does not mean that the reference necessarily suggests or provides motivation for use of that element as in a claimed invention. It is improper in setting up a *prima facie* case of obviousness to merely pick and choose elements from a number of references to assemble a claimed invention. In particular, doing so involves a hindsight reconstruction of a claimed invention using the claims as a blueprint or template which is clearly prohibited by the Federal Circuit.

Senda and Adiletta do not teach or suggest all the limitations of the presently claimed invention. Furthermore, the Office Action fails to address the specific language of the presently pending claims. In particular, in addressing claim 1 on page 2 of the Office Action, the Office Action fails to address that the claim recites a second circuit configured to select either said first reference picture or a second reference picture as a better reference picture for **subsequent** motion estimation on said current picture in response to said control signal. In particular, assuming, *arguendo*, element 75, 76 to 68 of Senda could be considered similar to the presently claimed second circuit (as suggested on page 2 of the Office Action and for which Applicants' representative does not necessarily agree), Senda fails to teach or

suggest that the circuit selects between the first reference picture and a second reference picture as a better reference picture for subsequent motion estimation in response to the control signal, as presently claimed.

Specifically, element 75, 76 to 68 of Senda do not select a reference picture for subsequent motion estimation. In particular, element 75 selects between a number of mean absolute error values generated from predicted pictures and element 76 adds a number of motion vectors. The selected mean absolute error values are presented to the element 68 in FIG. 9 of Senda which selects a prediction mode to be used by the coding section 64 of Senda. The motion vectors summed by the vector adder 76 are presented to the coding section 64 of Senda. The coding section 64 uses the predicted mode as indicated by the prediction mode selection section 68 and the motion vectors provided by the block 76 in the FIG. 10 to code an input digital video signal for output as a coded video signal. Thus, one of ordinary skill in the art would recognize that Senda teaches that motion estimation proceeded the steps illustrated in FIG. 10 of Senda. Since motion estimation was performed prior to the processes occurring in FIG. 10 of Senda, it follows that element 75, 76 to 78 in FIG. 10 of Senda do not and cannot suggest or teach a second circuit configured to select between the first reference picture and a second reference picture



as a better reference picture for subsequent motion estimation in response to the control signal, as presently claimed.

Furthermore, the element 75 does not select between a first reference picture and a second reference picture, but rather determines which of a number of mean absolute error values has the minimum value. One of ordinary skill in the art would not view the element 75 in FIG. 10 of Senda as being the same as a circuit configured to select between the first reference picture and a second reference picture as a better reference picture for subsequent motion estimation in response to the control signal as presently claimed. Therefore, the Office Action fails to factually establish a *prima facie* case of obviousness as required under MPEP §2143. As such, the presently claimed invention is fully patentable over the cited references and the rejections should be withdrawn.

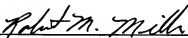
Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicants' representative between the hours of 9 a.m. and 5 p.m. ET at 586-498-0670 should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge Deposit  
Account No. 12-2252.

Respectfully submitted,

CHRISTOPHER P. MAIORANA, P.C.

  
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Robert M. Miller  
Registration No. 42,892

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c/o Lloyd Sadler  
LSI Corporation

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